

REMARKS

In the office action dated 10 July 2003 (the "Office Action"), Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikelle et al. (US 6,101,448). Claims 1, 12, 18, and 24 have been amended to clarify an aspect of the present invention as being discussed in previous office action and responses thereto.

In the Office Action , the examiner rejected Applicant's argument, which was based on the observation that Ikelle discloses the use of a ocean bottom cable (OBC) as receiver carrier. The present invention, however, specifically refers to measurement "measured using one or more multi-component streamer fully surrounded by the fluid medium or vertical cable fully surrounded by the fluid medium". The amendment does not introduce new matter as a streamer is known in the art as a receiver carrier or cable that is towed by a vessel through the body of water. Likewise, a vertical cable is known in the art as receiver carrier that is vertically suspended in a body of fluid. In contrast, an ocean bottom cable is known in the art as a receiver carrier that is located on the bottom of a body of water touching or being in contact with the sea floor. An ocean bottom cable is not fully surrounded by fluid medium.

Ikelle does not teach a deghosting filter for use with receiver carriers other than ocean bottom cables. The examiner failed to refer to a part of Ikelle that discloses the use of the methods described in Ikelle together using data measured with a receiver carrier fully surrounded by the fluid. To the contrary, there is abundant evidence for applicant's observation: The title of Ikelle refers to "SEA-BOTTOM DATA". The figures 1-3 refer to "sea bottom cable" (see col. 3, ll. 60-65). The surface S appearing in equation [1] is defined as the "sea floor profile" (col. 4, l. 53). The four component measured data {p, vx, vy, vz} as appearing the equations are explicitly referred to as "four component seismic data recorded directly at the sea floor" (col. 5, ll. 7-8). Further it is stated in Ikelle that the coefficients Γ (of the filter) "are dependent of the sea bottom geometry and elastic parameters" (col 6, ll14-15).

In summary, Ikelle does not disclose the use of receiver carrier fully embedded in a body of water and therefore does not anticipate the amended claims and the dependant claims.


Note: Ikelle is not available as a reference under 35 U.S.C. 103(a)

The examiner's attention is drawn to the fact that the present application and U.S. Patent No. 6,101,448 (Ikelle), were, at the time that the invention of the present application was made, subject to an obligation of assignment (with respect to the United States) to the same person (Schlumberger Technology Corporation). Therefore, while Ikelle is available as a reference under 35 U.S.C. 102(e), it is not available as a reference under 35 U.S.C. 103(a).

If the Examiner is contemplating any action other than allowance of claims 1-29, the Examiner is urged to contact Applicants' representative at 203-431-5506 or by email at wbatzer@ridgefield.oilfield.slb.com to discuss this case further.

In the event that a fee or refund is due in connection with this Amendment, the Commissioner is hereby authorized to charge any underpayment or credit any overpayment to Deposit Account No. 19-0615.

Respectfully submitted,



William B. Batzer
Registration No.: 37,088

William B. Batzer
Schlumberger Doll Research Center
36 Old Quarry Road
Ridgefield, CT 06877-4108
Phone: 203 431 5506
Fax: 203 431 5640
October 10, 2003